

HENRY WOO

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Education

- 2001 – 2005 The University of Illinois College of Medicine, Chicago, Illinois
Doctor of Medicine degree
Third-year clinical honors: obstetrics and gynecology; medicine;
psychiatry; surgery; pediatrics
- 1996 – 2000 The University of Chicago, Chicago, Illinois
Bachelor of Arts degree with general honors; biological sciences, with
Honors

Research

- June 2002 – Aug. 2002 **Doris Duke Medical Student Fellow in Clinical Gene Therapy**
Donald B. Kohn
The Children's Hospital Los Angeles, Division of Research Immunology and Bone Marrow Transplantation; and the University of Southern California Keck School of Medicine, Department of Pediatrics
- Learned principles of development of a new drug in gene therapy, from its inception in the laboratory to clinical testing; generated pre-clinical data on the safety of lentiviral vector gene therapy; became certified in protection of human research subjects by the Committee on Clinical Investigations (IRB) of the Children's Hospital Los Angeles; wrote amendment to an existing phase I clinical trial to introduce the investigational use of a myeloablative agent to improve gene therapy for HIV-infected pediatric patients; attended seminars on conducting clinical research, protecting subjects from research risks, and the basic science of gene transfer therapy and stem cell biology.
- June 2000 – Aug. 2001 **Research Technician**
Marc B. Hershenov
The University of Chicago, Department of Pediatrics
- Used techniques of cell and molecular biology, including western blot analysis, ELISA, and luciferase-based assays, to study signaling pathways of *Pseudomonas*-induced inflammation in normal and cystic fibrosis (CF) airway epithelium.
- 1997 – June 2000 **Junior Research Technician**
Deborah J. Nelson
The University of Chicago, Department of Neurobiology, Pharmacology, and Physiology
- Used electrophysiological and molecular biological techniques such as whole-cell voltage patch clamp; DNA sequencing; RNA synthesis and isolation from bacterial cells; site-directed mutagenesis; mammalian cell culture; and confocal microscopy in both mammalian and amphibian systems to study chloride ion channels, especially the hClC-3 as a possible bypass chloride pathway in CF cells.

June 1998 – Sept. 1998 **Summer Fellow**

J. Kevin Foskett

The University of Pennsylvania School of Medicine, Institute for Human Gene Therapy and Department of Physiology

Learned the voltage patch clamp technique and maintained tissue cultures for use in single channel (CFTR) recording to study the effect of estrogen and estrogen derivatives on CFTR function.

June 1995 – Aug. 1996 **Laboratory Aide** (full-time)

1993 – June 1995

Student Intern

Sandra J. Gendler

The Mayo Clinic and Foundation for Medical Education and Research, Department of Biochemistry and Molecular Biology

Independently practiced biochemical and molecular biological techniques, including PCR, RT-PCR, northern and Southern analyses (and associated techniques such as restriction digests, gel electrophoresis), genomic and plasmid DNA isolation and purification, mouse dissection and tissue isolation, RNA preparation from murine tissues, ligations and bacterial transformations, and cDNA library screening. Prepared and screened murine tissues for mRNA expression of transgenic CFTR.

Abstracts & Publications

Li, J., **Woo, H.**, Iazvovskaia, S., Tan, A., Lin, A., Hershenson, M. B. Signaling intermediates required for NF-kappa B activation and IL-8 expression in CF bronchial epithelial cells. *Am J Physiol Lung Cell Mol Physiol* **284(2)**, (2003).

Li, J., **Woo, H.**, Zeitlin, P., Hershenson, M. B. Stimulation of the asialoGM1 Pseudomonas aeruginosa pilin receptor activates I-kappaB kinase-beta in IB-3 CF bronchial epithelial cells. *Pediatric Pulmonology* **S22:239**, (2001). (Platform session presentation at the fifteenth annual North American Cystic Fibrosis Conference, Baltimore, Maryland.)

Page, K., Manaligod, J., Li, J., **Woo, H.**, Kartha, S., Brasier, A. R., Gruenert, D. C., Abe, M. K., Hershenson, M. B. Regulation of human airway epithelial cell gene expression by protein kinase C delta. *Am J Respir Crit Care Med* **163:A740**, (2001).

Bauerfeld, C. P., Manaligod, J., Li, J., Rumilla, K. M., **Woo, H.**, Hershenson, M. B., Page, K. Protein kinase Cz regulates cyclin D1 expression in primary bovine tracheal myocytes. *Am J Respir Crit Care Med* **163:A271**, (2001).

Huang, P., Di, A., Kaetzel, M. A., Kirk, K., Chang, S., **Woo, H.**, Nelson, D. J. A putative interaction between the hClC-3 and CFTR. *Biophysical Journal* **78(1)**, 1559-Plat (2000). (Platform session presentation at the forty-fourth annual meeting of the Biophysical Society, New Orleans, Louisiana.)

Huang, P., Di, A., Xie, W., **Woo, H.**, Campbell, N., Kaetzel, M. A., Nelson, D. J. Molecular identification of the CaMKII-activated chloride conductance: candidate bypass pathway. *Pediatric Pulmonology* **Supplement 19**, (September 1999). (Presented poster at the thirteenth annual North American Cystic Fibrosis Conference, Seattle, Washington.)

Huang, P., Xie, W., Di, A., **Woo, H.**, Kaetzel, M. A., Nelson, D. J. Molecular identification of the CaMKII-activated chloride conductance. *Biophysical Journal* **76(1)**, A403 (1999). (Presented poster at the forty-third annual meeting of the Biophysical Society, Baltimore, Maryland.)

Grants, Honors, & Other Experience

- 2005 Awarded the Raymond Zbick Memorial Award for medical student excellence in anesthesiology by the University of Illinois College of Medicine.
- 2004 – 2005 Appointed extern, Department of Anesthesiology, University of Illinois, Chicago, College of Medicine, a paid, yearlong appointment for selected fourth-year medical students to take ~q8 overnight call (approximately 48-60 hours per month) with anesthesiology residents covering the obstetrics and gynecology service. Performed preoperative evaluations; placed, under supervision, spinal and epidural anesthetics; assisted in the operating room; performed postoperative evaluations; maintained equipment, and stocked drugs and supplies. The duties of this position are separate from and in addition to those of the regular fourth-year curriculum.
- 2003 – 2005 Volunteer, the student-run free clinic of the University of Illinois, Chicago, College of Medicine. As a third-year student, oversaw and taught first- and second-year students in history-taking and physical exam skills in serving uninsured patients in the gynecology, pediatrics, family medicine, and medicine clinics. As a fourth-year student, functioned as an intern in independently seeing patients, developing diagnostic, treatment, and preventive plans before presenting to an attending physician.
- Spring 2000 Awarded a maximum \$1500 Cystic Fibrosis Foundation Student Traineeship Grant, a grant designed for M.D. or Ph.D. students or senior-level undergraduates about to enter a doctoral program.
- Spring 1999 Elected president of the University of Chicago Undergraduate Biological Sciences Organization. Oversaw a budget of \$10,000 and a twelve-member governing board.
- Spring 1999 Awarded a second maximum \$1000 grant from the Richter Fund for Undergraduate Research to continue the investigation of hClC-3 as a possible alternative chloride conductance pathway in CF.
- Spring 1999 Awarded and accepted a Howard Hughes Medical Institute Undergraduate Summer Research Fellowship at the University of Chicago to continue work on an honors research project.
- Spring 1998 Awarded a Howard Hughes Medical Institute Undergraduate Summer Research Fellowship at the University of Chicago. Declined acceptance to accept internship appointment at the Institute for Human Gene Therapy at the University of Pennsylvania School of Medicine.
- Spring 1998 Awarded a maximum \$1000 grant from the Richter Fund for Undergraduate Research to continue the investigation of hClC-3 as a possible alternative chloride conductance pathway in cystic fibrosis (CF).
- Summer 1997 Assisted in teaching Pharmacological and Physiological Sciences (PPS) 313: Introduction to Molecular Techniques. Instructed first-year students in the Ph.D. and M.D./Ph.D. graduate programs in molecular and electrophysiological laboratory techniques such as *in vitro* RNA synthesis, injection of RNA into *Xenopus* oocytes, and two-electrode voltage clamp recording from expressing oocytes.